

**Fact Sheet
August 2005**

Preventing Toxic Substances in Packaging for Consumer Goods



Hazardous Waste Management Program

*DTSC is one of six
Boards and
Departments within
the California
Environmental
Protection Agency.
The Department's
mission is to restore,
protect and enhance
the environment,
to ensure public health,
environmental
quality and
economic vitality,
by regulating
hazardous waste,
conducting and
overseeing
cleanups, and
developing
and promoting
pollution prevention.*

State of California



California
Environmental
Protection Agency



INTRODUCTION

Packaging for consumer goods makes up a significant portion of waste going to the nation's municipal solid waste landfills. Packaging that contains toxic substances can release toxins (poisonous substances) and contaminate the soil and groundwater surrounding the landfill. To address this problem, the California Legislature passed the Toxics in Packaging Prevention Act, also known as Assembly Bill (AB) 455, Statutes of 2003, chapter 679. That law was amended by AB 2021, Statutes of 2004, chapter 445, and takes effect on January 1, 2006. This fact sheet provides information about the new law to members of industry, regulators, public interest groups, and the general public.

This law is a pollution prevention measure that requires reducing and eliminating heavy metals in packaging as it is manufactured and distributed. It addresses the pollution problem at the source rather than regulating a material when it becomes a waste.

The new law is based on a national model. Eighteen other states have passed similar legislation since the 1990s. Since most packaging is manufactured for nationwide distribution, many packaging manufacturers and suppliers have already taken steps to obey similar laws in other states.

The Department of Toxic Substances Control (DTSC) is charged with enforcing the requirements of the new law that are found in the Health and Safety Code (Health & Saf. Code), division 20, chapter 6.5, article 10.4 (beginning with §25214.11).

What has changed?

The new law requires that using certain heavy metals in packages and packaging components (packaging) be regulated in California beginning January 1, 2006. The intent of the law is to reduce the toxicity (the degree toxins can have on humans or animals) in packaging without discouraging

the use of recycled materials in packaging production.

A **package** is any container used for marketing, protecting, or handling a product. This also includes unsealed containers, such as carrying cases, crates, cups, pails, rigid foil and other trays, wrappers and wrapping films, bags, and tubs.

A **packaging component** is any assembled part of a package, not necessarily limited to any interior or exterior additives.

Packaging includes packages and packaging components.

In general, the new law bans selling or promoting packaging that contains one or more specified heavy metals: lead, cadmium, mercury or hexavalent chromium, if the metals have been **intentionally introduced** during manufacture or distribution. However, the new law allows selling or promoting packaging containing those metals if their presence is **incidental and not more than 100 parts per million (ppm)** by weight, or the packaging otherwise qualifies for one or more specified exemptions. The exemptions are discussed in the following pages of this fact sheet

Intentional introduction is the deliberate use of the metals as ingredients in the manufacturing or distribution process. **Incidental presence** is when one or more of the regulated metals is an unintended or undesired ingredient of packaging.

Why are lead, cadmium, mercury, and hexavalent chromium being targeted?

Current scientific evidence indicates that lead, cadmium, mercury, and hexavalent chromium can present serious health risks.

- Lead, a carcinogen (a substance capable of producing cancer), can harm the kidneys, cardiovascular, gastrointestinal and reproductive systems. In children, lead can affect intelligence, short-term memory, reading abilities, and motor skills.
- Cadmium can lead to kidney disease, lung damage, fragile bones, and stomach irritations. Cadmium is also known to cause cancer and reproductive harm.
- Mercury poisoning can damage the central nervous system, kidneys and liver, as well as contribute to birth defects.
- Hexavalent chromium, a human carcinogen, can cause kidney and liver damage; nasal, skin

and stomach irritations; and convulsions. Exposure to high levels of both cadmium and hexavalent chromium can even lead to death.

While exposure to these metals may be a health risk, these metals are often found in inks, labels, dyes, pigments, adhesives, stabilizers and other packaging additives. Therefore, AB 455 and AB 2021 were passed to restrict the use of these metals to further protect human health and the environment.

Is any packaging exempt from the new law?

Yes. Several types of packaging are exempt from the new law. Some exemptions expire while others do not.

If you are a manufacturer or supplier and claiming an exemption, you must prepare, keep on file, and biennially update the following information pertaining to the packaging:

- Statement that the documentation applies to the exemption claimed;
- Name, position, and contact information for the person who is the manufacturer's or supplier's contact person concerning the exemption;
- Identification of the exemption and reference to the applicable section of law that allows for the exemption;
- Description of the type of packaging to which the exemption applies;
- Identification of the type and

concentration of the regulated metal or metals present in the packaging and a description of the testing methods used to determine the concentration;

- Explanation of the reason for the exemption; and
- Documentation that clearly demonstrates that the packaging is eligible for the exemption.

In addition to the documentation above, you must also keep documentation specific to the type of exemption you are claiming, as detailed below.

The following packaging is permanently exempt from the new law:

1. Packaging marked with a code indicating a date of manufacture prior to January 1, 2006 (Health & Saf. Code, §25214.14(a)). Keep the following documentation (Health & Saf. Code, §25214.15(b)):
 - Date of manufacture;
 - Estimated time needed to exhaust current inventory; and
 - Alternative packaging that meets the new requirements.
2. Packaging with metals added to meet federal and state health and safety requirements (Health & Saf. Code, §25214.14(b)). Keep the following documentation (Health & Saf. Code, §25214.15(c)):
 - Identification of the specific federal or state law that requires adding the regulated metal;
 - Detailed information to

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- demonstrate that adding the regulated metal to the packaging is necessary to comply with the specific federal or state law;
- Description of past, current and planned future efforts to seek or develop alternatives to eliminate using the regulated metal in the packaging; and
 - Description of all the alternatives considered, and for each, an explanation why the alternative does not comply with the law.
3. Packaging with a regulated metal for which there is currently no feasible alternative ingredient to use. (Health & Saf. Code, §25214.14(d)). Keep the following documentation (Health & Saf. Code, §25214.15(e)):
- Detailed information demonstrating how the regulated metal contributes to, and is essential to, the protection, safe handling, or functioning of the packaging contents;
 - Description of past, current, and planned future efforts to seek or develop alternatives to minimize or eliminate using the regulated metal in the packaging;
 - Description of all alternative measures considered, and, for each alternative, an explanation as to the technical constraints that preclude substituting the alternative for the regulated metal; and
 - Documentation that the regulated metal is not being used for marketing purposes.

The following packaging is temporarily exempt from the new law (exemptions expire January 1, 2010):

1. Packaging that contains no intentionally introduced regulated metals but exceeds the concentration limit solely because of adding a recycled material (Health & Saf. Code, §25214.14(c)). Keep the following documentation (Health & Saf. Code, §25214.15(d)):
 - Type and percentage of recycled material(s) added to the packaging;
 - Type and concentration of each regulated metal contained in each recycled material added to the packaging;
 - Efforts to minimize or eliminate the regulated metals in the packaging; and
 - Description of past, current, and planned future efforts to seek or develop alternatives to minimize or eliminate using the regulated metal in packaging.
2. Packaging that is reused and contains no intentionally introduced regulated metals but exceeds the applicable maximum concentration levels and the product is otherwise regulated (Health & Saf. Code, §25214.14(e)). Keep the following documentation (Health & Saf. Code, §25214.15(f)):
 - Percentage of reused materials;
 - Identification of the federal or state health or safety law regulating the product being conveyed by the packaging;
 - Identification of the federal or state transportation law regulating the

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| <p>transportation of the packaged product;</p> <ul style="list-style-type: none"> • Information demonstrating that the package is disposed of according to applicable laws and regulations; and • Description of past, current, and planned future efforts to seek or develop alternatives to minimize or eliminate using the regulated metal in the packaging. <p>3. Packaging that has a controlled distribution and reuse and contains no intentionally introduced regulated metals but exceeds the applicable maximum concentration levels (Health & Saf. Code, §25214.14(f)). Keep the following documentation (Health & Saf. Code, §25214.15(g)):</p> <ul style="list-style-type: none"> • Percentage of reused materials; • Information and evidence demonstrating that the environmental benefit of the controlled distribution and reuse of the packaging is significantly greater, as compared to the same packaging manufactured in compliance with the new requirements; • Means of identifying, in a permanent and visible manner, any reusable packaging containing a regulated metal for which the exemption is sought; • Method of regulatory and financial accountability, so that a specified percentage of the reusable packaging that is manufactured and distributed to other people is not discarded by those people after use, but is returned to the manufacturer or identified designees; • System of inventory and record maintenance to account for reusable | <p>packaging placed in, and removed from, service;</p> <ul style="list-style-type: none"> • Means of transforming returned packaging that is no longer reusable into recycled materials for manufacturing, or a means of collecting and managing returned packaging as waste according to applicable federal and state law; and • Description of past, current, and planned future efforts to seek or develop alternatives to minimize or eliminate using the regulated metal in the packaging. <p>4. Packaging that is a glass or ceramic package with a vitrified label (one that is applied with intense heat into or onto the package) (Health & Saf. Code, §25214.14(g)). The packaging cannot exceed 1.0 ppm for cadmium, 5.0 ppm for hexavalent chromium, and 5.0 ppm for lead when tested using California's hazardous waste testing procedures. Glass or ceramic packaging containing mercury is not eligible for this exemption. Keep the following documentation (Health & Saf. Code, §25214.15(h)):</p> <ul style="list-style-type: none"> • Applicable test data; and • Description of past, current, and planned future efforts to seek or develop alternatives to minimize or eliminate using the regulated metal in the packaging. |
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How is compliance assured?

After January 1, 2006, manufacturers and suppliers of packaging are required to self certify in a written statement that the packaging meets the requirements of the Toxics in Packaging Prevention Act. These requirements are found in Article 10.4 of

the Health and Safety Code, beginning with section 25214.11. Manufacturers and suppliers must provide the buyer with the certificate of compliance.

If the packaging is exempt from the requirements of Article 10.4, the certificate of compliance must state the reason for the exemption (Health & Saf. Code, §25214.14). A manufacturer or supplier who is claiming an exemption must submit a copy of the certificate to DTSC at the same time that it is provided to the buyer. Copies shall be mailed to DTSC, Attention: Hazardous Waste Management Program, P.O. Box 806, Sacramento, California, 95812. A manufacturer or supplier who is not claiming an exemption does not need to send a copy to DTSC. It does, however, need to keep the certificate of compliance on file and present it to DTSC only upon request.

Manufacturers and suppliers must keep the certificate on file for as long as the packaging is in use. They must issue a new certificate of compliance any time they change or create new packaging and must provide the new certificate to the buyer, and, if claiming an exemption, to DTSC. DTSC is required to provide copies of certificates of compliance to members of the public upon request, excluding any information that you identify as proprietary in nature (Health & Saf. Code, §25214.16).

Important: ***When submitting the certificate to DTSC, the manufacturer or supplier must identify any information in the certificate that is proprietary in nature, including any trade secrets.*** DTSC will keep confidential any information that the manufacturer or supplier identifies as proprietary in nature.

How will the new law be enforced?

AB 455 and AB 2021 requirements are part of California's Hazardous Waste Control Law in Chapter 6.5 of Division 20 of the Health and Safety Code. DTSC enforces the law through extensive inspection, records review, and enforcement authority that can result in civil penalties (Health & Saf. Code, §25189). A toll-free telephone number (1-800-698-6942) is available to the public to report information about violations of hazardous waste laws or regulations.

Disclaimer

This fact sheet was prepared in August 2005, and is based on statutes and regulations in effect at that time. The reader should not rely on this fact sheet for regulatory compliance and should instead review the most current statutes and regulations.

For more information, contact the DTSC office nearest you, or call the regional Public and Business Liaisons at (800) 72-TOXIC (800-728-6942). From outside California, call (916) 255-3545.

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or visit www.dtsc.ca.gov

For More Information
AB 455 and AB 2021 text:
www.leginfo.ca.gov/bilinfo/html

The Northeast Recycling Council, Inc.'s
Toxics in Packaging Clearinghouse
(802) 254-8911 or
www.toxicsinpackaging.org